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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,238	03/02/2004	Kevin M. Lewandowski	59520US002	4771

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EXAMINER

YEBASSA, DESTA LETTA

ART UNIT PAPER NUMBER

1615

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/792,238

Applicant(s)

LEWANDOWSKI ET AL.

Examiner

Desta L. Yebassa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Acknowledgment is made for the Applicant's response and amendment filed on 12/29/2005

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antonelli et al. (U.S. Patent No. 5,773,534) In view of Chudzik et al. (U.S. Patent No. 6,007,833), Bartkovitz et al. (U.S. Patent No. 4,394,493), Berge et al. (U.S. Patent No. 5,362,826), and Reed et al. (U.S. Patent No. 5,653,699).

Antonelli et al. disclose a method of polymerization to obtain a wide variety of crosslinkable polymers or copolymers by using variety of monomer species, some of which carry functional groups to provide crosslinking sites such as ethylene, propylene, butadiene, vinyl chloride, vinyl ether, tetrafluoroethane, styrene, acrylic or methacrylic acids, or their esters or amides, carboxylic acid or amide, moiety selected from epoxy, hydroxyl, isocyanate, amino, cyano, and the like (column 2, lines 45-65 and column 3, lines 1-10); suitable macromonomers are dimers, trimers, tetramers, and higher oligomers of monomers, comprising branched, unbranched, or cyclical methacrylates such as methyl, ethyl, propyl, butyl, hydroxyethyl or hydroxypropyl methacrylate methacrylic acid and the like (column 5, lines 40-45). Antonelli et al. also teaches polymerization process that produce crosslinkable polymers may be occurs such as in suspension, emulsion, or solution, in aqueous or organic media (column 8, lines 10); polymerization initiators that may be redox or thermally or photochemically induced, for example, azo, peroxide, peroxyester, or persulfate; suitable reactive functional groups such as OH, COOH, epoxy, silyl, amino, amide, anhydride, isocyanato, cyano, halo and the like; the usage of crosslinkable polymer products in variety of applications including curable binders, in coating, crosslinkers, pigment dispersants, and adhesives (column 9, lines 50-65).

The primary reference, Antonelli et al. do not specifically teach hydrophilic, polymer pendent polyalkylene oxide groups, and free-radically polymerizable functional groups. However the secondary references teach what Antonelli et al. lacks.

Chudzik et al. disclose a crosslinkable macromer includes two or more polymer pendent polymerizable groups and one or more polymer pendent initiator groups, which can be pendent on the same or different polymeric backbones (abstract). Chudzik et al. also disclose the pendent polymerizable groups are preferably selected from the group consisting of pendent vinyl groups, acrylate groups, and the like; the polymeric backbone preferably selected from the group consisting of synthetic macromers such as polyethylene oxide (PEO), polyvinylpyrrolidone (PVP) and polyethylene glycol (PEG) (column 4, lines 15-20), crosslinking and polymerization process generally initiated by a light activated free-radical polymerization initiator (column 6, lines 5-10).

Bartkovitz et al. disclose crosslinkable copolymers of poly(oxyethylene which comprise a substituted N-methylol derivative of acrylamide grafted onto a poly(oxyethylene)-copolymer (abstract); the preparation of poly(oxyalkylene) compounds that involves the reaction of alkylene oxide or mixtures of alkylene oxides with an aliphatic compound which may be saturated or contain some aliphatic unsaturation, having many active hydrogen atoms, such as water, monohydroxylic alcohols, such as xethanol, propanol, and alkyl alcohol; the poly(alkylene) products of such reaction which include linear or branched oxyalkylene or mixed oxyalkylene chains (column 3, 5-65).

Berge et al. teaches macromonomers comprises monomeric units such as methacrylates, methacrylonitrile, maleic anhydride, fumarate derivatives may be such as fumaronitrile, vinyl esters and acetates, metacrylic acid, and alkyl, glycidyl, hydroxyalkyl and the like (column 2, lines 55-65 and column 3, lines 5-40); preferred

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class of oligomeric chain transfer agent used in the composition such as –CONR₂, -COOR, unsubstituted or substituted phenyl, aryl, halo, or cyano, dimmers, trimers, tetramers, and higher oligomers of monomers and mixtures thereof; oligomers comprising branched, unbranched, cyclical, alkyl, or aromatic, methacrylates; degree of polymerization oligomeric chain transfer agent i.e., DP is 2 to 100, macromolecules or polymers or copolymers made by such polymerization have wide utility, especially for use in coating, (particularly high performance coating such as automotive finishes, and industrial maintenance coatings), inks, adhesives and the like (column 7, lines 15-45).

Reed et al. teaches a sheet-form composite such as a hydrophilic, monolithic film layer, characterized by having a differential ratio of wet to dry moisture transport rate, suitable as spysorbent wound dressing, and the film layer is laminated to a hydrophilic exudates transport layer (Abstract); the exudates transport layer can be comprised of absorptive materials: hydrocolloids, gels, hydrogels, foams, textiles, (woven or unwoven)membranes, and hydrophilic adhesives (Column 6, lines 50-55). Reed et al. also disclose suitable hydrocolloids such as natural gums, gum Arabic, plant seed gums, agar, alginate salts, modified starches, modified celluloses such as hydroxymethylcellulose, microcrystalline cellulose, carboxymethylcellulose and the like (column 12, lines 25-35).

Therefore, it would have been obvious to one of ordinary skill in the art to use the composition of Antonelli et al since Chudzik et al. and Bartkovitz et al. disclose crosslinkable copolymers of poly(oxyethylene, crosslinkable pendent polymerizable groups and polyethylene oxide (PEO) composition useful in preparing gel materials and

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medical articles; and Reed et al. disclose hydrophilic crosslinkable composition useful for wound dressing. One of ordinary skill in the art would be motivated to combine the compositions taught by Antonelli et al., Chudzik et al., Bartkovitz and Reed et al. to prepare crosslinkable copolymers of poly(oxyethylene, crosslinkable pendent polymerizable polyethylene oxide (PEO) composition useful in preparing gel materials and medical articles with a reasonable expectation of success.

The prior arts recited as combined teach the limitation of the instant claims. Therefore, the invention as whole has been prima face obvious to one of ordinary skill in the art at the time the invention was made.

The prior art recited as combined teach the limitations of the instant claims. The instant claims differ from the references only in the specific parts by weight of polymerized monomer units, or oligomer component, and crosslinking agent selected for the compositions. However, It would have been deemed prima Facie obvious to one having ordinary skill in the art at the time of the invention was made to select any of the compositions taught by Antonelli et al., Chudzik et al., Bartkovitz and Reed et al. to prepare crosslinkable copolymers of poly(oxyethylene, crosslinkable pendent polymerizable polyethylene oxide (PEO) hydrophilic materials that can be useful in medical articles and wound dressing because the selection of specific parts by weight of polymerized monomer units, oligomer component, and crosslinking agents are the result effective parameters chosen to obtain the desired effects and the artisan would be motivated to determine optimum amounts to get the maximum effect of the

compositions. Therefore, the invention as whole has been prima face obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

Applicant's argument and amendment filed on 12/29/2005 have been considered but are not persuasive.

Applicant argues that neither of the cited references, alone or in combination teach pendent hydrophilic poly(alkylene oxide)groups which may be derived from the monomers, pendent free-radically polymerizable functional groups, and poly(alkylene oxide crosslinking agent. The claims are directed to composition. The cited references teach the limitation of the instant claims.

Applicant's arguments have been fully considered. However, applicants' arguments are not persuasive because applicants did not argue the fact that the cited references disclose or suggest the components of the claimed composition. Since the references teach composition comprising of pendent polymerizable crosslinkable groups such as pendent vinyl groups, acrylate groups; the polymeric back bone polyethylene oxide (PEO), crosslinking and polymerization process that can be intitiated by a light activated free-radial polymerization initiator see Chudzik et al. (column 6, lines 5-10); copolymers of poly(oxyethylene which involves the reaction of alkylene oxide or mixtures of alkylene oxides see Bartkovitz et al (column 3, 5-65); hydrophilic, monolithic film layer, wound dressing comprised of absorptive materials: see Reed et a (column 12, lines 25-35) and see Antonelli et al. (column 2, lines 45-65, column 3, lines

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1-10, and column 5, lines 40-45) for monomer units and oligomers which read on the instant compositions, instant claims do not specifically distinguish the claimed composition from that of the prior art compositions so as render the compositions of prior art unsuitable for the claimed compositions.

The prior art recited as combined teach the limitations of the instant claims. The invention as whole has been prima face obvious to one of ordinary skill in the art at the time the invention was made. Therefore, applicant's argument is not persuasive. The rejection of record is maintained.

Conclusion

Due to the new grounds of rejection, this action is made non-final.

Telephonic Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Desta L. Yebassa whose telephone number is 571-272-8511. The examiner can normally be reached on Monday to Friday 8.00 am –6.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Patent Examiner
Art Unit 1615

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